

CLAIMS

What is claimed is:

- 5 1. An optical network assembly comprising:
- a light circuit having a first optical path and a second optical path, said first optical path propagating an optical energy having a first and a second information channel contained therein; and
- a filtering device for separating the optical energy into at least
- 10 two optical beams, a first beam containing said first information channel and second beam containing said second information channel, said filtering device passing the first beam therethrough and reflecting the second beam towards said second path, said second path propagating the reflected second beam away from said first beam, whereby modal disruption and losses of the optical energy entering and exiting the light circuit
- 15 due to alignment with other light carrying devices is reduced while minimizing an amount of hardware and size associated with the optical network assembly.
2. The optical network assembly of claim 1, further comprising at least three optical paths within the light circuit.
- 20 3. The optical network assembly of claim 1, further comprising a plurality of light circuits for connecting with a plurality of optical waveguides.

4. A method for separating optical energy comprising the steps of:
forming a light circuit having a first optical path and a second
optical path;

5 propagating an optical beam having a first and a second
information channel contained therein along the first optical path towards a filtering
device;

10 separating the optical beam into at least two beams, a first beam
containing the first information channel and second beam containing the second
information channel;

passing the first beam through the filtering device and reflecting
the second beam off of the filtering device; and

15 propagating the reflected second beam along the second path
away from the first beam, whereby modal disruption and losses of the optical energy
entering and exiting the light circuit due to alignment with other light carrying devices
is reduced while an amount of hardware and size associated with the light circuit are
minimized.

20 5. The method of claim 4, further comprising the steps of:
forming additional light paths within the light circuit; and
propagating additional channels of information within the optical
beam.

25 6. The method of claim 4, further comprising the steps of:
forming a plurality of light circuits; and
connecting the plurality of light circuits with a plurality of
optical waveguides.

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